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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,689	11/06/2003	Vinay Mehta	FDN-2815	8995

7590 09/29/2010
GAF MATERIALS CORPORATION
Attn: William J. Davis, Esq.
Legal Department, Building No. 10
1361 Alps Road
Wayne, NJ 07470

EXAMINER

COLE, ELIZABETH M

ART UNIT	PAPER NUMBER
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1782

MAIL DATE	DELIVERY MODE
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09/29/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/702,689	Applicant(s) MEHTA ET AL.	
	Examiner Elizabeth M. Cole	Art Unit 1782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,9,12,16-29 and 36-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,9,12,16-29 and 36-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/4/10 has been entered.

1. Claims 1-5, 9 12, 16-18, 36-40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not provide support for the claimed structure of a breathable thermoplastic film comprising a thermoplastic polyurethane blended with about 40-60% ethylene methacrylate polymer. The specification does not provide support for the claimed values of 40-60%. The specification does not mention a percentage for the ethylene methacrylate polymer which is blended with polyurethane.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 1-5, 9,12, 16-18, 36-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/37668 in view of Corzani et al, U.S. Patent Application Publication No. 2003/0194566. WO '668 discloses a roofing underlayment comprising a water vapor permeable layer bonded to a fabric layer such as a nonwoven fiber glass. The vapor permeable layer can be more than one layer and therefore meets the limitation of claim 3, in that the structure is unclear other than that a second vapor permeable layer is recited. See page 7 which teaches at least one functional, (breathable), layer and therefore teaches more than one functional layer. The water vapor permeable layer can comprise copolyether ester, polyurethane or copolyether amide. See page 7, fourth full paragraph. The substrate layer can be a fiberglass layer. See page 8, fourth full paragraph. The vapor permeable layer can have a thickness of greater than 2 mils. See page 9, first full paragraph. The combination of the permeable layer and the fibrous substrate layer has a thickness of 0.4 mm which is about 15 mils, and therefore the permeable layer would apparently meet the thickness requirements set forth in claims 9 and 12. WO '668 differs from the claimed invention because it does not teach blending an adhesion promoter into the vapor permeable layer and does not teach further adding water repellant, algacide, herbicide antifungal, surface friction agent, flame retardant or coloring dye. Corzani teaches blending an additional component into the breathable layer of a roofing underlayment comprising thermoplastic polymeric layers in order to improve the bonding of the breathable layer to other layers. The additive can include ethylene vinyl acetate grafted with maleic anhydride, (paragraph 0032), or ethylene methyl methacrylate based copolymers. See paragraphs

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0032-0034. The composition may further comprise antioxidants, pigments, UV stabilizers, etc. See paragraph 0051. The compositions comprising the blend have better bond strengths. See paragraph 0055. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the adhesion promoters or improvers taught by Corzani as well as the additives such as pigments, etc., in the breathable layer of WO '668, in order to improve the bonding strength of the composition of WO '668. It is noted that Corzani also teaches film thickness within the claimed ranges. See paragraphs 0068-0069. The composition can be bonded with various fibrous substrates, (paragraph 0079), has a MVTR of at least 100 g per square meter per 24 hours, (paragraph 0084), and is useful in roofing materials, (paragraph 0096). With regard to the particular amounts claimed, it would have been obvious to have selected the amounts of adhesion promoters through the process of routine experimentation which produced the optimum bonding of the laminate material.

4. Applicant's arguments filed 8/4/10 been fully considered but are not persuasive.

5. Applicant argues that paragraph 0041 provides support for the invention as claimed because it discusses a tie layer of EMA having a methyl acrylate level of about 18% or greater. However, the claims recite 40-60% ethylene methacrylate polymer blended with thermoplastic polyurethane. The specification does not describe this embodiment. Paragraph 0041 provides support for a tie layer having greater than 18% of methyl acrylate in a tie layer of ethylene methyl acrylate. It does not disclose a blend of ethylene methacrylate polymer with thermoplastic polyurethane in a range of 40-60%.

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6. Applicant argues that the combination of WO '668 and Corzani does not provide a reasonable amount of guidance to arrive at the claimed blend which comprises 40-60% ethylene methacrylate polymer. However, since Corzani teaches employing the ethylene methacrylate polymer as an adhesion promoting additive with polyurethane breathable films, the person of ordinary skill in the art would have been able to select the optimum amount of ethylene methacrylate polymer which produced the best adhesion in the laminate. It is noted that the instant specification does not disclose the values of 40-60% per se and that therefore it cannot establish that those values are critical to the invention. Further, Applicant has not provided any data establishing the criticality of this range, but even if there were such data, the specification does not set forth any criticality for this range. A teaching of greater than 18% methyl acrylate polymer does not encompass values of 40-60% ethylene methacrylate polymer as argued by Applicant, as far as the numerical values are concerned, and further, even if it did, the specification is still completely silent as to any criticality of the range and does not disclose the range at all. Therefore, the range cannot be critical to the invention since it is not even disclosed in the specification. Therefore, the rejection is maintained.

7. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued

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examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

The examiner's supervisor Rena Dye may be reached at (571) 272-3186.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

/Elizabeth M. Cole/
Primary Examiner, Art Unit 1782

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